ABSTRACT OF THE DISCLOSURE

The Stokes shift emission spectra were measured for various samples, including tissues containing photoactive bio-molecules such as tryptophan, elastin, collagen, NADH and flavin. This new approach allows for the extraction of new information not easily obtained from the excitation and/ or fluorescence spectra of the same samples. For example, Stokes shift spectroscopy of tissue samples can detect disease states in humans and animals.